



6560-50-P

## **ENVIRONMENTAL PROTECTION AGENCY**

### **40 CFR Part 52**

**[EPA-R04-OAR-2018-0666; FRL-9994-13-Region 4]**

#### **Air Plan Approval; South Carolina; 2008 8-hour Ozone Interstate Transport**

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Proposed rule.

**SUMMARY:** The Environmental Protection Agency is proposing to approve South Carolina's June 18, 2018, State Implementation Plan (SIP) submission pertaining to the "good neighbor" provision of the Clean Air Act (CAA or Act) for the 2008 8-hour ozone National Ambient Air Quality Standards (NAAQS). The good neighbor provision requires each state's implementation plan to address the interstate transport of air pollution in amounts that contribute significantly to nonattainment, or interfere with maintenance, of a NAAQS in any other state. In this action, EPA is proposing to determine that South Carolina's SIP contains adequate provisions to prohibit emissions within the State from contributing significantly to nonattainment or interfering with maintenance of the 2008 8-hour ozone NAAQS in any other state.

**DATES:** Comments must be received on or before **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

**ADDRESSES:** Submit your comments, identified by Docket ID No. EPA-R04-OAR-2018-0666 at <http://www.regulations.gov>. Follow the online instructions for submitting comments. Once submitted, comments cannot be edited or removed from regulations.gov. EPA may publish any comment received to its public docket. Do not submit electronically any information you

consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. EPA will generally not consider comments or comment contents located outside of the primary submission (i.e., on the web, cloud, or other file sharing system). For additional submission methods, the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit <http://www2.epa.gov/dockets/commenting-epa-dockets>.

**FOR FURTHER INFORMATION CONTACT:** Evan Adams, Air Regulatory Management Section, Air Planning and Implementation Branch, Air and Radiation Division, U.S.

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## **SUPPLEMENTARY INFORMATION:**

### **I. Background**

On March 12, 2008, EPA promulgated an ozone NAAQS that revised the levels of the primary and secondary 8-hour ozone standards from 0.08 parts per million (ppm) to 0.075 ppm.<sup>1</sup> *See* 73 FR 16436 (March 27, 2008). Pursuant to CAA section 110(a)(1), within three years after promulgation of a new or revised NAAQS (or shorter, if EPA prescribes), states must submit SIPs that meet the applicable requirements of section 110(a)(2). EPA has historically referred to these SIP submissions made for the purpose of satisfying the requirements of sections 110(a)(1)

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<sup>1</sup> 0.075 ppm equates to 75 parts per billion (ppb).

and 110(a)(2) as “infrastructure SIP” submissions. One of the structural requirements of section 110(a)(2) is section 110(a)(2)(D)(i), which generally requires SIPs to contain adequate provisions to prohibit in-state emissions activities from having certain adverse air quality effects on neighboring states due to interstate transport of air pollution. There are four sub-elements, or “prongs,” within section 110(a)(2)(D)(i) of the CAA. CAA section 110(a)(2)(D)(i)(I), also known as the “good neighbor” provision, requires SIPs to include provisions prohibiting any source or other type of emissions activity in one state from emitting any air pollutant in amounts that will contribute significantly to nonattainment, or interfere with maintenance, of the NAAQS in another state. The two provisions of this section are referred to as prong 1 (significant contribution to nonattainment) and prong 2 (interference with maintenance). Section 110(a)(2)(D)(i)(II) requires SIPs to contain adequate provisions to prohibit emissions that will interfere with measures required to be included in the applicable implementation plan for any other state under part C to prevent significant deterioration of air quality (prong 3) or to protect visibility (prong 4). This proposed action addresses only prongs 1 and 2 of section 110(a)(2)(D)(i). All other infrastructure SIP elements for South Carolina for the 2008 8-hour ozone NAAQS were addressed in separate rulemakings.<sup>2</sup>

#### A. *State Submittal*

On June 18, 2018, the South Carolina Department of Health and Environmental Control (SC DHEC) provided a SIP submittal<sup>3</sup> to EPA to address the interstate transport requirements of

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<sup>2</sup> See 83 FR 48239 (September 24, 2018); 81 FR 56512 (August 22, 2016); 80 FR 48255 (August 12, 2015); 80 FR 14019 (March 18, 2015); and 80 FR 11136 (March 2, 2015).

<sup>3</sup> On October 24, 2011, South Carolina submitted a state implementation plan revision to address the 110(a)(1) and (2) requirements of the CAA including section 110(a)(2)(D)(i)(I) with respect to the 2008 ozone NAAQS. On April 16, 2013, the state withdrew its good neighbor SIP submission. See August 29, 2016 Memorandum from Gobeail

sections 110(a)(2)(D)(i)(I) for the South Carolina SIP. South Carolina made this submission to certify that its SIP contains adequate provisions to prohibit emissions activities within the State which will contribute significantly to nonattainment or interfere with maintenance of the 2008 8-hour ozone NAAQS in any other state, and therefore, adequately addresses the requirements of CAA section 110(a)(2)(D)(i)(I) for the 2008 8-hour ozone NAAQS.<sup>4</sup> South Carolina's certification is based on air quality monitoring and modeling data, SIP-approved and state provisions regulating emissions of ozone precursors (volatile organic compounds (VOCs) and nitrogen oxides (NO<sub>x</sub>)) within the State, and an analysis of recent trends in emissions of ozone precursors (VOCs and NO<sub>x</sub>) from South Carolina sources.

*B. EPA's Analysis related to 110(a)(2)(D)(i)(I) for the 2008 8-hour ozone NAAQS*

EPA developed technical information and related analyses to assist states with meeting section 110(a)(2)(D)(i)(I) requirements for the 2008 8-hour ozone NAAQS through SIPs and, as appropriate, to provide backstop federal implementation plans (FIPs) in the event that states failed to submit approvable SIPs.<sup>5</sup> On October 26, 2016, EPA took steps to effectuate this

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McKinley re "Status of 110(a)(2)(D)(i)(I) SIPs for the 2008 Ozone NAAQS," available at <https://www.regulations.gov/document?D=EPA-HQ-OAR-2015-0500-0509>; July 17, 2012 South Carolina SIP Submittal for the 2008 8-hour Ozone Infrastructure Requirements, available at <https://www.regulations.gov/document?D=EPA-R04-OAR-2012-0694-0002>.

<sup>4</sup> On July 13, 2015, EPA published a final rulemaking that finalized findings of failure to submit with regard to the requirements of CAA section 110(a)(2)(D)(i)(I) for 24 states, including South Carolina, with respect to the 2008 ozone NAAQS. *See* 80 FR 39961. The findings of failure to submit established a two-year deadline for EPA to promulgate a FIP to address the interstate transport SIP requirements pertaining to significant contribution to nonattainment and interference with maintenance unless, prior to EPA promulgating a FIP, the state submits, and EPA approves, a SIP that meets these requirements. Additional background on the findings of failure to submit – including EPA's findings related to South Carolina – can be found in the preamble to the final rule. *See* 80 FR 39961.

<sup>5</sup> The EPA issued a Notice of Data Availability on August 4, 2015, requesting comment on the modeling platform and air quality modeling results that were used for the proposed CSAPR Update. *See* 80 FR 46271.

backstop role with respect to eastern states<sup>6</sup> by finalizing an update to the 2011 Cross-State Air Pollution Rule (2011 CSAPR) ozone season program that addresses good neighbor obligations for the 2008 8-hour ozone NAAQS (CSAPR Update).<sup>7</sup> The CSAPR Update establishes statewide NO<sub>x</sub> budgets for certain affected electricity generating units in 22 eastern states for the May through September ozone season to reduce the interstate transport of ozone pollution in the eastern United States, and thereby help downwind states and communities meet and maintain the 2008 8-hour ozone NAAQS. *See* 81 FR 74504 (October 26, 2016). The rule also determined that emissions from 14 states (including South Carolina) will not significantly contribute to nonattainment or interfere with maintenance of the 2008 ozone NAAQS in downwind states. Accordingly, EPA determined that it need not require further emission reductions from sources in those states to address the good neighbor provision as to the 2008 ozone NAAQS. *Id.*

The CSAPR Update used the same framework that EPA used when developing the original 2011 CSAPR, EPA's interstate transport rule addressing the 1997 8-hour ozone NAAQS as well as the 1997 and 2006 fine particulate matter (PM<sub>2.5</sub>) NAAQS. This framework established the following four-step process to address the requirements of the good neighbor provision: 1) identify downwind areas, referred to as receptors, that are expected to have problems attaining or maintaining the NAAQS; 2) determine which upwind states impact these identified problems in amounts sufficient to "link" them to the downwind air quality problems; 3) for states linked to downwind air quality problems, identify upwind emissions, if any, that will

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<sup>6</sup> For purposes of the CSAPR Update, "eastern" states refer to all contiguous states fully east of the Rocky Mountains (thus not including the mountain states of Montana, Wyoming, Colorado, or New Mexico).

<sup>7</sup> *See* Federal Implementation Plans: Interstate Transport of Fine Particulate Matter and Ozone and Correction of SIP Approvals, Final Rule (2011 CSAPR), 76 FR 48208 (August 8, 2011); Cross-State Air Pollution Rule Update for the 2008 Ozone NAAQS (CSAPR Update), 81 FR 74504 (October 26, 2016).

significantly contribute to nonattainment or interfere with maintenance of a NAAQS; and 4) reduce the identified upwind emissions for states that are found to have emissions that will significantly contribute to nonattainment or interfere with maintenance of the NAAQS downwind by adopting permanent and enforceable measures in a FIP or SIP. In the CSAPR Update, EPA used this four-step framework to determine whether states in the east will significantly contribute to nonattainment or interfere with maintenance of downwind air quality. As explained below, the CSAPR Update's four-step analysis supports the conclusions provided in SC DHEC's June 18, 2018, interstate transport SIP submittal for the 2008 8-hour ozone NAAQS that the state will not significantly contribute to nonattainment or interfere with maintenance of the standard in other states.

In the technical analysis supporting the CSAPR Update, EPA used detailed air quality analyses to determine where projected nonattainment or maintenance receptors would be, at step 1 of the four-step framework, and whether emissions from an eastern state contribute to downwind air quality problems at those projected nonattainment or maintenance receptors, in step 2 of the framework. Specifically, EPA determined whether each state's contributing emissions were at or above a specific threshold. EPA determined that one percent was an appropriate threshold to use in this analysis because there were important, even if relatively small, contributions to identified nonattainment and maintenance receptors from multiple upwind states at that threshold.<sup>8</sup> See 81 FR 74504 (October 26, 2016). For the CSAPR Update, EPA

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<sup>8</sup> EPA's analysis showed that the one-percent threshold generally captured a high percentage of the total pollution transport affecting downwind states. EPA's analysis further showed that the application of a lower threshold would result in relatively modest increases in the overall percentage of ozone transport pollution captured, while the use of higher thresholds would result in a relatively large reduction in the overall percentage of ozone pollution transport captured relative to the levels captured at one percent at the majority of the receptors. See 81 FR 74504 (October 26,

applied an air quality screening threshold of 0.75 ppb (equivalent to one percent of the 2008 8-hour ozone NAAQS of 75 ppb) to identify linkages between upwind states and the downwind nonattainment and maintenance receptors. States with impacts below the one-percent threshold were considered not to contribute to identified downwind nonattainment and maintenance receptors and therefore would not contribute significantly to nonattainment or interfere with maintenance of the standard in those downwind areas. If a state's impact was equal to or exceeded the one-percent threshold, that state was considered "linked" to the downwind nonattainment or maintenance receptor(s) and the state's emissions were further evaluated, taking into account both air quality and cost considerations, to determine whether any emissions reductions might be necessary to address the state's obligation pursuant to CAA section 110(a)(2)(D)(i)(I).

As discussed in the final rulemaking for the CSAPR Update, the air quality modeling contained in EPA's technical analysis: 1) identified locations in the U.S. where EPA anticipated nonattainment or maintenance issues in 2017 for the 2008 8-hour ozone NAAQS (these were identified as nonattainment or maintenance receptors, respectively), and 2) quantified the projected contributions from emissions from upwind states to downwind ozone concentrations at the receptors in 2017. *See* 81 FR 74504 (October 26, 2016). This modeling used the Comprehensive Air Quality Model with Extensions (CAMx version 6.11) to model the 2011

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2016) and "Air Quality Modeling Final Rule Technical Support Document for the Final CSAPR Update" (CSAPR Update Modeling TSD), available at [https://www.epa.gov/sites/production/files/2017-05/documents/aq\\_modeling\\_tsd\\_final\\_csapr\\_update.pdf](https://www.epa.gov/sites/production/files/2017-05/documents/aq_modeling_tsd_final_csapr_update.pdf). This approach is consistent with the use of a one-percent threshold to identify those states "linked" to air quality problems with respect to the 1997 8-hour ozone NAAQS in the original CSAPR rulemaking, wherein EPA noted that there are adverse health impacts associated with ambient ozone even at low levels. *See* 76 FR 48208 (August 8, 2011); *see also* "Air Quality Modeling Final Rule Technical Support Document" for the 2011 CSAPR, available at <https://www.regulations.gov/document?D=EPA-HQ-OAR-2009-0491-4140>.

base year and the 2017 future base case emissions scenarios to identify projected nonattainment and maintenance sites with respect to the 2008 8-hour ozone NAAQS in 2017. EPA used nationwide state-level ozone source apportionment modeling (the CAMx Ozone Source Apportionment Technology/Anthropogenic Precursor Culpability Analysis technique) to quantify the contribution of 2017 base case NO<sub>x</sub> and VOC emissions from all sources in each state to the 2017 projected receptors. The air quality model runs were performed for a modeling domain that covers the 48 contiguous United States, the District of Columbia, and adjacent portions of Canada and Mexico. The updated modeling data released to support the final CSAPR Update for South Carolina inform the Agency's analysis of upwind state linkages to downwind air quality problems for the 2008 8-hour ozone NAAQS. *See* CSAPR Update Modeling Technical Support Document (TSD).

EPA's air quality modeling for the final CSAPR Update indicated that South Carolina's largest impact on any projected downwind nonattainment receptor in 2017 was 0.15 ppb and South Carolina's largest contribution to any projected downwind maintenance-only site in 2017 was 0.30 ppb.<sup>9</sup> These values are below the one percent screening threshold of 0.75 ppb, and therefore there are no identified linkages between South Carolina and 2017 downwind projected nonattainment and maintenance sites.

Additionally, the CSAPR Update addressed the decision from the United States Court of Appeals for the District of Columbia Circuit in *EME Homer City Generation, L.P. v. EPA*, 795 F.3d 118 (D.C. Cir. 2015), remanding for reconsideration certain state ozone season NO<sub>x</sub> emission budgets from the original CSAPR (including South Carolina's) with respect to the 1997

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<sup>9</sup> *See* CSAPR Update Modeling TSD at Table 4-2, section 4.4 and Appendix D.



8-hour ozone NAAQS.<sup>10</sup> EPA removed South Carolina from the CSAPR ozone season trading program beginning in 2017.<sup>11</sup>

## **II. What is EPA's Analysis of the South Carolina Submittal?**

As mentioned in section I, South Carolina's June 18, 2018, submittal certifies that emission activities from the State will not contribute significantly to nonattainment or interfere with maintenance of the 2008 8-hour ozone NAAQS in any other state for the following reasons: 1) modeling conducted by EPA in support of the CSAPR Update indicates that South Carolina's impact on any downwind receptor is far less than 1 percent of the standard; 2) NO<sub>x</sub> and VOC precursor emissions and monitored ozone concentrations in South Carolina have decreased since 2002; and 3) South Carolina has in place both SIP-approved and state provisions that regulate ozone precursors in the State. Based on an assessment of this information, EPA proposes to approve South Carolina's SIP submission because it has adequate provisions to ensure that emissions from sources within the State will not significantly contribute to nonattainment or interfere with maintenance of the 2008 8-hour ozone NAAQS in any other state.

South Carolina's submittal assessed EPA's CSAPR Update modeling, which showed South Carolina's impact on downwind receptors for the 2008 8-hour ozone NAAQS as far less than one percent of the standard (i.e., 0.75 ppb). South Carolina cites to EPA's August 2016 CSAPR Update Modeling TSD where the modeling indicated that South Carolina's largest

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<sup>10</sup> Among other things, the decision remanded CSAPR without vacatur for reconsideration of the EPA's emission budgets for certain states. The court declared invalid the CSAPR Phase 2 NO<sub>x</sub> ozone season emission budgets of 11 states, including South Carolina, holding that those budgets over-control with respect to the downwind air quality problems to which those states were linked for the 1997 ozone NAAQS. Because the 2008 ozone NAAQS is more stringent than the 1997 ozone NAAQS, the CSAPR Update modeling necessarily indicates that South Carolina is also not linked to any remaining air quality concerns with respect to the 1997 ozone standard for which the states were regulated in the original CSAPR. For South Carolina, EPA therefore relieved sources in the State from the obligation to comply with the NO<sub>x</sub> ozone season trading program in response to the remand.

<sup>11</sup> See 81 FR 74523-74524.

impact on any projected downwind nonattainment receptor in 2017 was 0.15 ppb and the largest impact on any projected downwind maintenance-only site was 0.30 ppb, both of which are below 0.75 ppb, the one percent threshold for the 2008 ozone NAAQS. Therefore, EPA concluded in the CSAPR Update that South Carolina's emissions will not contribute to downwind nonattainment and maintenance receptors and therefore, did not finalize a FIP that required additional emission reductions from South Carolina. Accordingly, in the CSAPR Update, EPA made a final determination that South Carolina emissions will not significantly contribute to nonattainment or interfere with the 2008 ozone NAAQS in other states and that sources in the State are not required to further reduce emissions pursuant to the good neighbor provision with respect to this standard.<sup>12</sup>

South Carolina's submittal also notes that total annual NO<sub>x</sub> emissions and total annual VOC emissions in South Carolina have decreased by 47 percent and 36 percent, respectively, between 2002 and 2014. South Carolina indicates that monitored ozone concentrations in the State are also trending downward, due to the success of federal and state air regulations, which correlates to the decline in ozone precursor emissions.

SC DHEC identified regulations that have been approved into the South Carolina SIP to provide for the control of NO<sub>x</sub> and nitrogen dioxide (NO<sub>2</sub>), which are precursors that contribute to ambient ozone concentrations. These regulations include Regulations 61-62.5, Standard 7 – *Prevention of Significant Deterioration*, and 61-62.5, Standard 7.1 – *Nonattainment New Source Review*, which provide for the implementation of a permitting program required under Title I,

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<sup>12</sup> See 81 FR 74506. EPA is not reopening for comment final determinations made in the CSAPR Update or the modeling conducted to support that rulemaking.

Parts C and D of the CAA for sources of NO<sub>x</sub>. The permitting requirements help ensure that no new or modified sources in the State subject to these permitting regulations will significantly contribute to nonattainment or interfere with maintenance of the 2008 8-hour ozone NAAQS. SC DHEC also identified SIP-approved Regulation 61-62.1 *Definitions and General Requirements*, which provide enforceable emission limits and other control measure, means, and techniques. SIP-approved Regulation 61-62.5, Standard No. 5.2, *Control of Oxides of Nitrogen (NO<sub>x</sub>)* establishes emission standards and compliance (testing and monitoring) requirements respectively for stationary sources of air pollution emissions.<sup>13</sup>

South Carolina further identified the following regulations that provide for the implementation of VOC emissions controls: Regulation 61-62.60, *South Carolina Designated Facility Plan and New Source Performance Standards* and Regulation 61-62.61, *National Emission Standards for Hazardous Air Pollutants and National Emissions Standards for Hazardous Air Pollutants (NESHAP) for Source Categories*. While these rules are not approved into the federally-approved SIP, they incorporate the federal requirements of 40 CFR parts 60 and 63 by reference.

Based on the information presented herein, EPA proposes to approve South Carolina's June 18, 2018, SIP submission on grounds that it addresses the State's 110(a)(2)(D)(i)(I) good neighbor obligation for the 2008 8-hour ozone NAAQS because the EPA has found that the State will not significantly contribute to nonattainment or interfere with maintenance of the 2008 ozone NAAQS in any other state.

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<sup>13</sup> Although not relied upon for purposes of approval, SC DHEC also identified state-only provisions of the South Carolina Code Section 48-1-10 *Pollution Control Act* and Section 1-23-10 *State Agency Rule Making and Adjudication of Contested Cases* as regulations that the State is implementing which provide for the control of NO<sub>x</sub> emissions.

### **III. Proposed Action**

EPA is proposing to approve South Carolina's June 18, 2018, SIP submission demonstrating that South Carolina's SIP is sufficient to address the CAA requirements of prongs 1 and 2 under section 110(a)(2)(D)(i)(I) for the 2008 8-hour ozone NAAQS. EPA requests comment on this proposed approval of South Carolina's SIP.

### **IV. Statutory and Executive Order Reviews**

Under the CAA, the Administrator is required to approve a SIP submission that complies with the provisions of the Act and applicable federal regulations. *See* 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions, EPA's role is to approve state choices, provided that they meet the criteria of the CAA. Accordingly, this proposed action merely proposes to approve state law as meeting federal requirements and does not impose additional requirements beyond those imposed by state law. For that reason, this proposed action:

- Is not a significant regulatory action subject to review by the Office of Management and Budget under Executive Orders 12866 (58 FR 51735, October 4, 1993) and 13563 (76 FR 3821, January 21, 2011);
- Is not an Executive Order 13771 (82 FR 9339, February 2, 2017) regulatory action because SIP approvals are exempted under Executive Order 12866;
- Does not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*);
- Is certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*);

- Does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Public Law 104-4);
- Does not have Federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);
- Is not an economically significant regulatory action based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997);
- Is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001);
- Is not subject to requirements of section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the Clean Air Act; and
- Does not provide EPA with the discretionary authority to address, as appropriate, disproportionate human health or environmental effects, using practicable and legally permissible methods, under Executive Order 12898 (59 FR 7629, February 16, 1994).

Because this action merely approves state law as meeting Federal requirements and does not impose additional requirements beyond those imposed by state law, this proposed action for the State of South Carolina does not have Tribal implications as specified by Executive Order 13175 (65 FR 67249, November 9, 2000). Therefore, this action will not impose substantial direct costs on Tribal governments or preempt Tribal law. The Catawba Indian Nation (CIN) Reservation is located within the boundary of York County, South Carolina. Pursuant to the Catawba Indian Claims Settlement Act, S.C. Code Ann. 27-16-120

(Settlement Act), “all state and local environmental laws and regulations apply to the [Catawba Indian Nation] and Reservation and are fully enforceable by all relevant state and local agencies and authorities.” The CIN also retains authority to impose regulations applying higher environmental standards to the Reservation than those imposed by state law or local governing bodies, in accordance with the Settlement Act.

**List of Subjects in 40 CFR Part 52**

Environmental protection, Air pollution control, Incorporation by reference, Intergovernmental relations, Nitrogen oxides, Ozone, Reporting and recordkeeping requirements, Volatile organic compounds.

**Authority:** 42 U.S.C. 7401 *et seq.*

Dated: May 14, 2019.

Mary S. Walker,

Acting Regional Administrator,

Region 4.

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